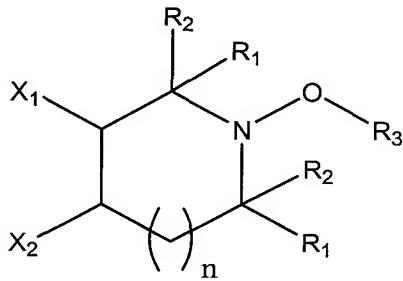


IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A process for the preparation of a block copolymer by means of radicalic polymerization, which comprises:

a) polymerizing a vinylaromatic monomer at a temperature higher than, or equal to, 120°C, in the presence of a radicalic initiating system, consisting of a compound having general formula (I):



wherein R₁ and R₂, the same or different, represent a methyl or ethyl radical, X₁ represents a hydrogen atom, X₂ represents a hydrogen atom or a hydroxyl, or X₁ and X₂, the same or different, represent a C₁-C₄ (iso)alkyl radical, or, they jointly form an aromatic ring, n is equal to zero or 1, and R₃ represents a radical selected from one of the following groups:

-C(CH₃)₂-CN,

-C(CH₃)₂-Ph, or

-CHCH₃Ph;

or R₃ is absent, as in that position there is an un-coupled electron, used in a mixture with radical generator compounds (G) selected from peroxides, peresters, percarbonates, or azobisisdialkyldinitriles, and with molar ratios I/G lower than 4;

until a conversion of the monomer ranging from 5 to 99.9% is obtained;

b) feeding to the polymerization mixture of step (a), after obtaining the desired conversion, a monomer deriving from (meth)acrylic acid methacrylonitrile in such a quantity

that, at the end of the polymerization, the total weight of the block copolymer, M_w, is lower than 1,000,000, wherein step b) is carried out operating at the same operating temperature [[,]] and in the presence of the same initiating system as step a); and
c) recovering, at the end of the polymerization, the block copolymer thus obtained,
wherein a precipitation and/or recovery step of a first polymeric block is absent
between steps a) and b).

Claim 2 (Original): The process according to claim 1, wherein the R₃ group is -C(CH₃)₂-CN.

Claim 3 (Original): The process according to claim 1, wherein the R₃ group is -C(CH₃)₂-Ph.

Claim 4 (Original): The process according to claim 1, wherein the R₃ group is -CHCH₃Ph.

Claim 5 (Original): The process according to claim 1, wherein the R₃ group is absent.

Claim 6 (Previously Presented): The process according to claim 1, wherein the polymerization of both step (a) and step (b) is carried out at a temperature ranging from 120 to 150°C.

Claim 7 (Previously Presented): The process, according to claim 1, wherein the initiator having general formula (I) is present in concentrations ranging from 0.01 to 2% in moles with respect to the total moles of the monomers fed.

Claim 8 (Previously Presented): The process according to claim 1, wherein the initiator having general formula (I) is used with free radical generators (G), selected from dibenzoyl peroxide, dicumyl peroxide, or N,N'-azobis-(diisobutyronitrile); and with molar ratios I/G ranging from 1 to 3.

Claim 9 (Previously Presented): The process according to claim 1, wherein the polymerization of both steps (a) and (b) is carried out batchwise, in continuous or semi-continuous at a temperature higher than 120°C and at a pressure, which is such as to maintain the monomers in liquid phase.

Claim 10 (Previously Presented): The process according to claim 1, wherein in the radicalic initiating system, having general formula (I), X₁ and X₂ jointly form an aromatic ring, and n is equal to zero.

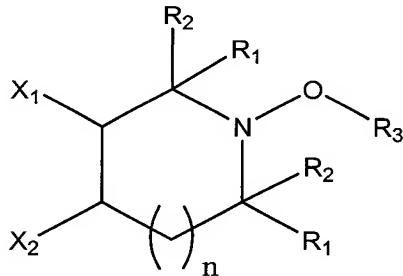
Claim 11 (Previously Presented): The process according to claim 10, wherein the initiator having general formula (I) is selected from:

1,1,3,3-tetraethyl-2-(2-cyanoprop-2-yl)-2,3-dihydro-1H-isoindole;
1,1,3,3-tetraethyl-2-(2-phenylprop-2-yl)-2,3-dihydro-1H-isoindole;
1,1,3,3-tetraethyl-2-(2-phenylethyl)-2,3-dihydro-1H-isoindole;
1,1,3,3-tetramethyl-2-(2-cyanoprop-2-yl)-2,3-dihydro-1H-isoindole;
1,1,3,3-tetramethyl-2-(2-phenylprop-2-yl)-2,3-dihydro-1H-isoindole; or
1,1,3,3-tetramethyl-2-(2-phenylethyl)-2,3-dihydro-1H-isoindole.

Claim 12 (Canceled).

Claim 13 (New): A process for the preparation of a block copolymer by means of radicalic polymerization, which comprises:

a) polymerizing a vinylaromatic monomer at a temperature higher than, or equal to, 120°C, in the presence of a radicalic initiating system, consisting of a compound having general formula (I):



wherein R_1 and R_2 , the same or different, represent a methyl or ethyl radical, X_1 represents a hydrogen atom, X_2 represents a hydrogen atom or a hydroxyl, or X_1 and X_2 , the same or different, represent a C_1-C_4 (iso)alkyl radical, or, they jointly form an aromatic ring, n is equal to zero or 1, and R_3 represents a radical selected from one of the following groups:

- $C(CH_3)_2-CN$,

- $C(CH_3)_2-Ph$, or

- $CHCH_3Ph$;

or R_3 is absent, as in that position there is an un-coupled electron, used in a mixture with radical generator compounds (G) selected from peroxides, peresters, percarbonates, or azobisisdialkyldinitriles, and with molar ratios I/G lower than 4;

until a conversion of the monomer ranging from 5 to 99.9% is obtained;

b) feeding to the polymerization mixture of step (a), after obtaining the desired conversion, a monomer deriving from (meth)acrylic acid in such a quantity that, at the end of the polymerization, the total weight of the block copolymer, M_w , is lower than 1,000,000,

wherein step b) is carried out at the same operating temperature and in the presence of the same initiating system as step a); and

c) recovering, at the end of the polymerization, the block copolymer thus obtained; wherein a precipitation and/or recovery step of a first polymeric block is absent between steps a) and b), and at least one of the following conditions is satisfied in reference to formula (I):

the R₃ group is -C(CH₃)₂-CN;

the R₃ group is -C(CH₃)₂-Ph;

the R₃ group is -CHCH₃Ph;

X₁ and X₂ jointly form an aromatic ring, and n is equal to zero; and

the initiator is selected from

1,1,3,3-tetraethyl-2-(2-cyanoprop-2-yl)-2,3-dihydro-1H-isoindole;

1,1,3,3-tetraethyl-2-(2-phenylprop-2-yl)-2,3-dihydro-1H-isoindole;

1,1,3,3-tetraethyl-2-(2-phenylethyl)-2,3-dihydro-1H-isoindole;

1,1,3,3-tetramethyl-2-(2-cyanoprop-2-yl)-2,3-dihydro-1H-isoindole;

1,1,3,3-tetramethyl-2-(2-phenylprop-2-yl)-2,3-dihydro-1H-isoindole; or

1,1,3,3-tetramethyl-2-(2-phenylethyl)-2,3-dihydro-1H-isoindole.

Claim 14 (New): The process according to claim 13, wherein the R₃ group is -C(CH₃)₂-CN.

Claim 15 (New): The process according to claim 13, wherein the R₃ group is -C(CH₃)₂-Ph.

Claim 16 (New): The process according to claim 13, wherein the R₃ group is

-CHCH₃Ph.

Claim 17 (New): The process according to claim 13, wherein in the radicalic initiating system, having general formula (I), X₁ and X₂ jointly form an aromatic ring, and n is equal to zero.

Claim 18 (New): The process according to claim 17, wherein the initiator having general formula (I) is selected from:

1,1,3,3-tetraethyl-2-(2-cyanoprop-2-yl)-2,3-dihydro-1H-isoindole;

1,1,3,3-tetraethyl-2-(2-phenylprop-2-yl)-2,3-dihydro-1H-isoindole;

1,1,3,3-tetraethyl-2-(2-phenylethyl)-2,3-dihydro-1H-isoindole;

1,1,3,3-tetramethyl-2-(2-cyanoprop-2-yl)-2,3-dihydro-1H-isoindole;

1,1,3,3-tetramethyl-2-(2-phenylprop-2-yl)-2,3-dihydro-1H-isoindole; or

1,1,3,3-tetramethyl-2-(2-phenylethyl)-2,3-dihydro-1H-isoindole.